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| APPLICATION NO.                         | FILING DATE    | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|---|----------------|----------------------|-------------------------|------------------|
| 10/809,318                              | 03/24/2004     | Ferencz S. Denes     | 032026-0772             | 4778             |
| 23524 75                                | 590 02/27/2006 |                      | EXAMINER                |                  |
| FOLEY & LARDNER LLP                     |                |                      | JUNG, UNSU              |                  |
| 150 EAST GILMAN STREET<br>P.O. BOX 1497 |                | ART UNIT             | PAPER NUMBER            |                  |
| MADISON, WI 53701-1497                  |                |                      | 1641                    |                  |
|   |                |                      | DATE MAILED: 02/27/2006 |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|  | <del></del>   | <del></del>  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|
|  | Application No.   | Applicant(s)   |  |  |  |  |  |
| Office Action Summer.  | 10/809,318  | DENES ET AL.   |  |  |  |  |  |
| Office Action Summary  | Examiner  | Art Unit   |  |  |  |  |  |
|  | Unsu Jung   | 1641   |  |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply   |   |  |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE             | N. nely filed the mailing date of this communication. D (35 U.S.C. § 133). |  |  |  |  |  |
| Status   |   |  |  |  |  |  |  |
| 1) Responsive to communication(s) filed on 23 No   | ovember 2005  |  |  |  |  |  |  |
| ·- · · · · · · · · · · · · · · · · · ·   |   |  |  |  |  |  |  |
|  | This action is <b>FINAL</b> . 2b)⊠ This action is non-final.  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is |  |  |  |  |  |  |
| closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  |   |  |  |  |  |  |  |
| ·  | x parte Quayle, 1900 O.D. 11, 40  | 00 0.0. 210.   |  |  |  |  |  |
| Disposition of Claims  |   |  |  |  |  |  |  |
| 4)⊠ Claim(s) <u>1-33</u> is/are pending in the application.  |   |  |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |   |  |  |  |  |  |  |
| 5) Claim(s) is/are allowed.  |   |  |  |  |  |  |  |
| 6) Claim(s) is/are rejected.   |   |  |  |  |  |  |  |
| 7) Claim(s) is/are objected to.  | /) Claim(s) is/are objected to.   |  |  |  |  |  |  |
| 8) Claim(s) 1-33 are subject to restriction and/or   | election requirement.   |  |  |  |  |  |  |
| Application Papers   |   |  |  |  |  |  |  |
| 9) The specification is objected to by the Examine   | r   |  |  |  |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.   |   |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  |   |  |  |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |   |  |  |  |  |  |  |
| ,  | ammor. Note the attached emoc   | 7.00011 01 101111 1 1 0 - 102.   |  |  |  |  |  |
| Priority under 35 U.S.C. § 119   |   |  |  |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  |   |  |  |  |  |  |  |
| a) ☐ All b) ☐ Some * c) ☐ None of:   | a) ☐ All b) ☐ Some * c) ☐ None of:  |  |  |  |  |  |  |
| 1. Certified copies of the priority documents have been received.  |   |  |  |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No   |   |  |  |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage  |   |  |  |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).  |   |  |  |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |   |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |
| Attachment(s)  |   |  |  |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)  |   |  |  |  |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  | _   | Paper No(s)/Mail Date  5) Notice of Informal Patent Application (PTO-152)  |  |  |  |  |  |
| 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date   | 6) Other:   | atom Application (FTO-102)   |  |  |  |  |  |
|  |   |  |  |  |  |  |  |

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## **DETAILED ACTION**

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## Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - Claims 1-17, drawn to a method of treating a surface of a substrate, classified in class 436, subclass 532, for example.
  - Claims 18-26, drawn to an inorganic oxide substrate, classified in class
     435, subclass 287.9, for example.
  - III. Claims 27-33, drawn to a method of treating a surface of a substrate by implanting silicon-chlorine-containing plasma, classified in class 436, subclass 528, for example.
- 2. The inventions are distinct, each from the other because of the following reasons:
- 3. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process. For example, the product of Group II can be made by the method of Group III.

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4. Inventions I and III are independent and patentably distinct. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the method of Group I includes a step of forming hydroxyl groups on an oxide surface by exposing the surface to a plasma, which is not required by the method of Group III. The method of Group III includes a step of implanting silicon-chlorine functionalities into the substrate surface by exposing the surface to a chlorine-containing plasma, which is not required by the method of Group I. Therefore, the methods of Groups I and III have different modes of operation.

- 5. Inventions II and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process. For example, the product of Group II can be made by the method of Group I.
- 6. Because these inventions are distinct for the reasons given above, have acquired a separate status in the art because of their recognized divergent subject matter, and searches for one group are not required by the others, restriction for examination purposes as indicated is proper.

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made.

7. A telephone call was made to Ms. Manning on February 3, 2006 to request an oral election to the above restriction requirement, but did not result in an election being

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Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

- 8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).
- 9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Unsu Jung whose telephone number is 571-272-8506. The examiner can normally be reached on M-F: 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Unsu Jung, Ph.D. Patent Examiner Art Unit 1641

LONG V. LE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600

02/16/06